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The first species of *Borboropora* KRAATZ from the East Palaearctic region (Coleoptera: Staphylinidae: Aleocharinae: Falagriini)

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A b s t r a c t : *Borboropora indica* nov.sp. (India: Arunachal Pradesh), the first representative of the genus recorded from the East Palaearctic region, is described and illustrated. *Borboropora pseudoquadriceps* DELGADO & SANTIAGO-JIMÉNEZ, 2009 and *B. mixe* DELGADO & SANTIAGO-JIMÉNEZ, 2009 from Mexico are excluded from *Borboropora* KRAATZ, 1862 and tentatively moved to *Anaulacaspis* GANGLBAUER, 1895 and *Falagrioma* CASEY, 1906, respectively, resulting in the binomina *Anaulacaspis pseudoquadriceps* (DELGADO & SANTIAGO-JIMÉNEZ, 2009), nov.comb., and *Falagrioma mixe* (DELGADO & SANTIAGO-JIMÉNEZ, 2009), nov.comb. Thus, *Borboropora* currrently includes a total of seven species.

K e y w o r d s : Coleoptera, Staphylinidae, Aleocharinae, Falagriini, *Borboropora*, East Palaearctic region, India, taxonomy, new species.

Introduction

Eight species are currently assigned to the falagriine genus *Borboropora* KRAATZ, 1862, three of them distributed in the West Palaearctic region (*B. kraatzii* FUSS, 1862, *B. reitteri* (WEISE, 1877), and *B. myrmecophila* ASSING, 2009), one in the Afrotropical region (*B. africana* CAMERON, 1950), two in the Nearctic region (*B. quadriceps* (LECONTE, 1866) and *B. sulcifrons* (CASEY, 1893)), and two described from Mexico (*B. peudoquadriceps* DELGADO & SANTIAGO-JIMÉNEZ, 2009 and *B. mixe* DELGADO & SANTIAGO-JIMÉNEZ, 2009) (ASSING 2009b; CAMERON 1950; DELGADO & SANTIAGO-JIMÉNEZ 2009; HOEBEKE 1985). The genus had never been recorded from the East Palaearctic and Oriental regions. Illustrations of the West Palaearctic and Nearctic species are provided by ASSING (2009a, 2009b), TRONQUET (2006), and HOEBEKE (1985), respectively.

While browsing the collections of the Museum Koenig, Bonn, on the occasion of the 29th International Meeting on Systematics and Biology of Staphylinidae, seven specimens of *Borboropora* from Arunachal Pradesh (Northeast India) were discovered. An examination of these specimens revealed that they represent an undescribed species, the first record of the genus from the East Palaearctic region.

Material, methods, and measurements

The material treated in this study is deposited in the following collections:

ZFMK ..... Zoologisches Forschungsmuseum Alexander Koenig, Bonn (D. Ahrens)

cAss..... author´s private collection

The morphological studies were conducted using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena). A digital camera (Nikon Coolpix 995) was used the remaining photographs.

Body length was measured from the mandibles to the apex of the abdomen, the length of the forebody from the mandibles to the posterior margin of the elytra, the length of the head from the anterior margin of the clypeus (without ante-clypeus) to the posterior constriction of the head, the length of the elytra along the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the median lobe of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

The limits of the zoogeographic regions are in accordance with those in SCHÜLKE & SMETANA (2015).

Results

On *Borboropora pseudoquadriceps* and *B. mixe*

C o m m e n t : Based on the illustrations provided by DELGADO & SANTIAGO-JIMÉNEZ (2009), especially those of the head and pronotum, the generic assignment of *B. pseudoquadriceps* and *B. mixe* is evidently erroneous. Neither species has the characteristic head of *Borboropora*, and morphogical features of the pronotum of *B. mixe* are completely different from those of *Borboropora*. In fact, both species are not even congeneric. Hence, based on the illustrations and descriptions in DELGADO & SANTIAGO-JIMÉNEZ (2009), both species are excluded from *Borboropora*. Their correct generic placement requires revision. In the meantime, *B. pseudoquadriceps* is tentatively assigned to the genus *Anaulacaspis* GANGLBAUER, 1895 and *B. mixe* to *Falagrioma* CASEY, 1906.

Borboropora indica nov.sp. (Figs 1-10)

T y p e m a t e r i a l : Holotype ♂: "NE INDIA ARUNACHAL PR., ETALIN vicinity, 700 m, 28°36'56"N 95°53'21"E, FIT (flight interception trap), L. Dembický leg., 12.-25.v.2012 / Holotypus ♂ *Borboropora indica* sp.n. det. V. Assing 2015" (ZFMK). Paratypes: 1♂, 3♀♀, 2 sex?: same data as holotype (ZFMK, cAss).

E t y m o l o g y : The specific epithet is an adjective derived from India.

D e s c r i p t i o n : Very small species; body length 1.9-2.7 mm; length of forebody 1.1-1.3 mm. Habitus as in Fig. 1. Coloration: head and pronotum blackish-brown to black; elytra dark-yellowish; abdomen dark-brown to blackish-brown; legs pale-brown

with yellowish tarsi; antennae dark-brown to blackish-brown, usually with the basal two or three antennomeres slightly paler.

Head (Fig. 2) approximately 1.1 times as broad as long; posterior margin distinctly concave; median portion with sharp median furrow of somewhat variable length; punctation extremely fine, noticeable only at high magnification; anterior portion with or without more distinct punctures; interstices without microsculpture. Eyes approximately as long as postocular region or slightly shorter in dorsal view. Antenna (Fig. 3) incrassate apically; antennomere IV weakly tranverse; antennomeres V-X increasingly transverse and of gradually increasing width; antennomere X approximately twice as broad as long.

Pronotum (Fig. 4) small and narrow in relation to head, 1.05-1.07 times as long as broad and 0.80-0.85 times as broad as head; midline with or without very indistinct median furrow; near posterior margin with a pair of marked, sometimes confluent puncture-like impressions; punctation extremely fine, visible only at high magnification; interstices without microsculpture.

Elytra (Fig. 5) 0.75-0.85 times as long as pronotum; punctation moderately sparse and very fine on disc, but more distinct than that of pronotum; near anterior margin and on scutellum with less fine and rather dense punctation; interstices without microsculpture. Hind wings fully developed.

Abdomen slightly narrower than elytra; punctation fine, but more distinct than that of elytra; interstices without microsculpture; posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII convex and pectinate (Fig. 8).

♂: sternite VIII with weakly convex posterior margin; median lobe of aedeagus 0.23 mm long, shaped as in Figs 6-7; internal sac with pair of sclerotized structures and with inversely S-shaped flagellum (lateral view).

♀: sternite VIII (Fig. 9) slightly shorter than that of male, posterior margin very weakly convex; spermatheca (Fig. 10) minute, 0.1 mm long, and with very short capsule.

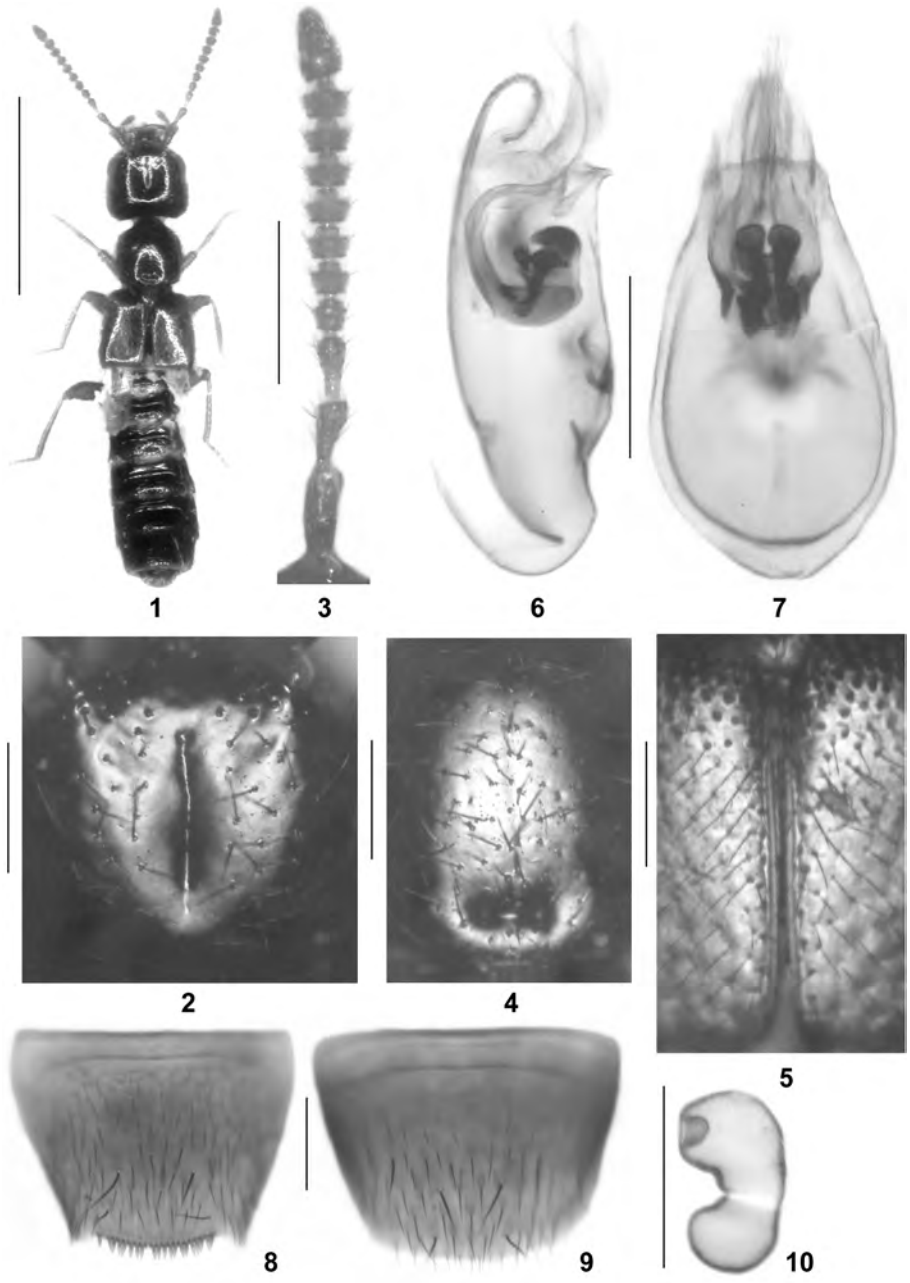
C o m p a r a t i v e n o t e s : The new species is distinguished from its congeners by the primary sexual characters and from the three West Palaearctic representatives of the genus additionally as follows:

from *B. kraatzi* by smaller body size, darker coloration (particularly of the legs and antennae), the more slender and relatively smaller pronotum (*B. kraatzi*: pronotum approximately as broad as long and approximately 0.9 times as broad as head), the even finer punctation of the pronotum, the shorter elytra (*B. kraatzi*: elytra approximately 0.9 times as long as pronotum), and the sparser punctation of the elytra;

from *B. reitteri* by the much finer and sparser punctation of the head, pronotum, and elytra, the relatively smaller and more slender pronotum (*B. reitteri*: pronotum approximately as broad as long), and the shorter elytra (*B. reitteri*: elytra nearly as long as pronotum);

from *B. myrmecophila* by much smaller body size (*B. myrmecophila*: length of forebody 1.5 mm), the paler coloration of the elytra (*B. myrmecophila*: elytra dark-brown), the much finer and sparser punctation of the whole body, and the shorter elytra (*B. myrmecophila*: elytra nearly as long as pronotum).

For illustrations of *B. kraatzi*, *B. reitteri*, and *B. myrmecophila* see TRONQUET (2006), ASSING (2009a), and ASSING (2009b), respectively.



Figs 1-10: *Borboropora indica* nov.sp.: (**1**) habitus; (**2**) antero-median portion of head; (**3**) antenna; (**4**) median portion of pronotum; (**5**) sutural portion of elytra; (**6-7**) median lobe of aedeagus in lateral and in ventral view; (**8**) female tergite VIII; (**9**) female sternite VIII; (**10**) spermatheca. Scale bars: 1: 1.0 mm; 3: 0.2 mm; 2, 4-10: 0.1 mm.

Distribution and natural history: *Borboropora indica* is the first representative to be recorded from the East Palaearctic region. The type locality is situated in Arunachal Pradesh, Northeast India, in the border region between the East Palaearctic and Oriental regions, suggesting that the distribution of this species may extend also into the north of the Oriental region. The specimens were collected with flight interception traps at an altitude of 700 m.

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Zusammenfassung

Borboropora indica nov.sp. (Indien: Arunachal Pradesh), die erste aus der Ostpaläarktis nachgewiesene Art der Gattung *Borboropora* KRAATZ, 1862, wird beschrieben und abgebildet. *Borboropora pseudoquadriceps* DELGADO & SANTIAGO-JIMÉNEZ, 2009 und *B. mixe* DELGADO & SANTIAGO-JIMÉNEZ, 2009 aus Mexiko werden vorläufig in die Gattungen *Anaulacaspis*, GANGLBAUER, 1895 bzw. *Falagrioma* CASEY, 1906 gestellt. Dadurch ergeben sich die Binomina *Anaulacaspis pseudoquadriceps* (DELGADO & SANTIAGO-JIMÉNEZ, 2009), nov.comb., und *Falagrioma mixe* (DELGADO & SANTIAGO-JIMÉNEZ, 2009), nov.comb. *Borboropora* enthält damit derzeit insgesamt sieben Arten.

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